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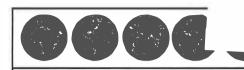
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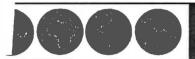
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# **NEWS INTERNATIONAL**

## **Modern ventilation technology for Ancient Wonder**

4500 years after it was built, the naturalventilation system for the King's Chamber in the Great Pyramid at Giza was proving inadequate to clear the humidity and carbon dioxide generated by the daily stream of tourists.

Last year, following a review of requirements, the Egyptian Antiquities
Department accepted a technical proposal from CIAT to install mechanical ventilation.

Two medium-pressure, 2-speed extract fans have been installed on the outside of the pyramid, 80 m above ground level, at the mouths of the original north and south ventilation shafts. Fresh air enters though the access passages.

The fans are controlled by an electrical cabinet with a timer, which runs them at high speed during the day and at low speed overnight.

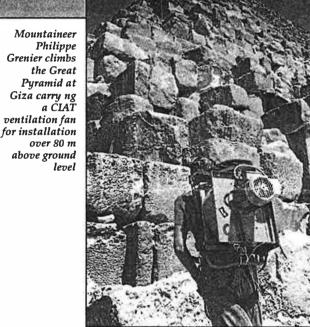
Getting the units into position was no easy task on the steep and rough surface of the pyramid. The work was done by Philippe Grenier, a mountain guide and Everest veteran, who made the climbs carrying each

CIAT ventilator

27kg fan on his back. Electrical cable was drawn up through the shafts using a steel rope. The fans were connected using PVC ducts coated with silicone and blasted with sand to conceal them.

The ventilators were specially designed using high-quality materials. The casing was designed and treated to resist sandstorms; the special

Mountaineer Philippe Grenier climbs the Great Pyramid at Giza carry ng a CIAT ventilation fan



motors enable operation at high temperatures and in hu idity up to 100%, and the fan was specially balanced to avoid

vibrations on the pyramid. The installation was completed last summer and is now operational. Reader Reply No. 83

#### **CHINA**

## Lighting the way in China

UK technology is illuminating the new Beijing headquarters of China Hewlett-Packard. W itecroft Lighting supplied over 4000 luminaires for the project. For speed of installation, they were installed using the Wiremaster modular lighting-control system from sister company ECS Lighting Controls.

In this application, lighting levels are controlled by operating the dual-circuited fluorescent luminaires to switch one, two or all three lamps in each fitting. Reader Reply No. 84

The headquarters of China Hewlett-Packard in the 11-storey Onward Science & Trade Centre in Beijing are illuminated using equipment from Whitecroft Lighting and ECS Lighting Controls

## Recovery is in sight for Japan's beleaguered airconditioning market, with shipments for the 1999 season expected to be up to 5% higher than those for the 1998

**Recovery near for Japan's** 

season, according to JARN. Full-scale recovery is expected from the year 2000.

The optimism for 1999 and beyond follows a decline across virtually all sectors of the market last year. Domestic shipments of room air conditioners were down by 8.4%, by number of units. The decline in packaged air conditioners was even higher — at 13.2%. The actual sales are estimated at 6.7 million units, and inventories which stood at about 2.7 million units, are likely to have fallen to just under 2 million units.

The decline in demand is attributed to a considerable downturn in demand for new houses and building construction starts. The weather last summer was also unfavourable for the sales of refrigeration and air-

unfavourable for the sales of refrigeration and airconditioning equipment.

The trend from cooling only to heat-pump equipment
for room and packaged air conditioners continues.

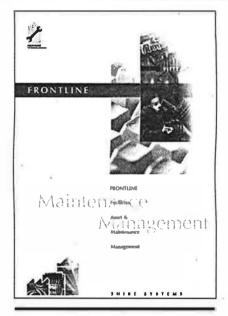
Unit sales of cooling-only room air conditioners fell by
21.7% compared with 7.6% for heat-pump models;
cooling-only units now account for just 5% of the market.

In the packaged market, unit sales of cooling-only
equipment fell by 20.3% compared with 12% for Heatpump units. Cooling-only equipment accounts for 14.2%
of this market, by units. of this market, by units.

#### THE NETHERLANDS

# **Environmental recognition** for refrigeration plant

DuPont's fluoroproducts plant at Dordrecht in The Netherlands has won ISO 14001 certification of its environmental management system. The plant produces Suva and Freon refrigerants, as well as a wide range of other chemicals.

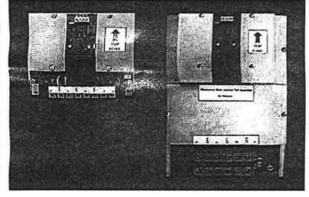


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